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## Patent Abstracts of Japan

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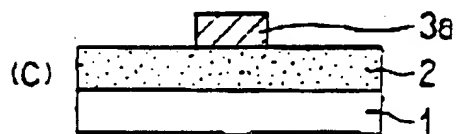
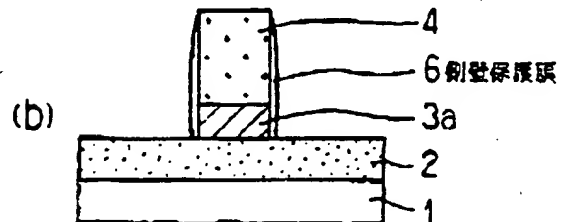
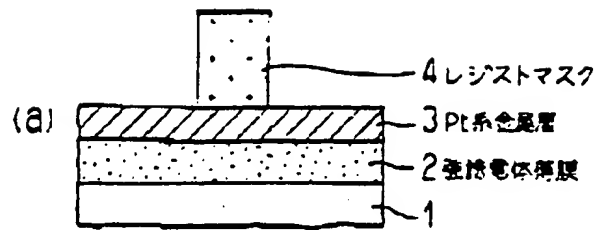
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TITLE : DRY ETCHING METHOD



ABSTRACT : PURPOSE: To provide an anisotropic dry etching method of platinum layer used for an electrode etc., of a semiconductor device using a ferroelectric thin film.

CONSTITUTION: Pt-base metal layer 3 is subjected to dry etching while heating and controlling a substrate temperature to 90°C or can release liberated sulfur into plasma such as  $S_2F_2$ . Since the deposit of sulfur or sulfur compound such as polythiazyl is utilized as a side-wall protection film 6, anisotropy is improved. Since a substrate is heated within a specific temperature range, a practical etching rate can be obtained. The side wall protection film is subjected to sublimation elimination by heating the substrate after the etching is completed, no risk for particle contamination exists.

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